

CLAIMS

What is claimed is:

- 1 1. A method comprising:
2 generating an attestation key pair within a platform; and
3 producing a certificate including a public attestation key to attest that a private
4 attestation key, corresponding to the public attestation key, is stored in hardware-
5 protected memory.
- 1 2. The method of claim 1, wherein prior to generating the attestation key
2 pair, the method further comprises providing the platform including a processor and a
3 system memory including an isolated area accessible only by the processor running in an
4 isolated execution mode.
- 1 3. The method of claim 1, wherein the producing of the certificate occurs at
2 an initial power-on of the platform.
- 1 4. The method of claim 2, wherein the producing of the certificate comprises:
2 booting the platform from code stored in a platform readable medium loaded by
3 an agent; and
4 executing an applet running within the isolated area of the system memory to
5 generate the attestation key pair.
- 1 5. The method of claim 4, wherein the producing of the certificate further
2 comprises encrypting the public attestation key with a private key held by the agent.

1 6 The method of claim 1, wherein the producing of the certificate comprises:
2 encrypting the public attestation key using a private key held by an original
3 equipment manufacturer of the platform.

1 7 The method of claim 1 further comprising:
2 receiving a challenge message from a remotely located platform, the challenge
3 message including a nonce.

1 8 The method of claim 7 further comprising:
2 generating a response message for transmission to the remotely located platform,
3 the response message including the certificate, the nonce and a hash value of an audit log.

1 9 The method of claim 8, wherein the nonce and the hash value are signed
2 with the private attestation key.

1 10. A platform comprising:
2 a processor to operate in one of a normal execution mode and an isolated
3 execution mode;
4 an input/output control hub in communication with the processor, the input/output
5 control hub to generate an attestation key pair and to store an audit log being a listing of
6 data representing a plurality of software modules loaded within the platform.

1 11 The platform of claim 10, wherein the plurality of software modules
2 include a processor nub and an operating system nub.

1 12. The platform of claim 10 further comprising at least one input/output
2 device allowing communications with a remotely located platform.

1 13. The platform of claim 10 further comprising a token link coupled to the
2 input/output control hub, the token link providing a communication path for a token.

1 14. The platform of claim 13 wherein the token stores a private attestation key
2 of the attestation key pair.

1 15. A platform comprising:
2 a processor to operate in either a normal execution mode or an isolated execution
3 mode;
4 a system memory coupled to the processor, the system memory including an
5 isolated area and a non-isolated area;
6 a device in communication with the processor, the device to store an audit log, the
7 audit log being a listing of data or presenting information loaded into the isolated area of
8 the system memory; and
9 a token to generate an attestation key pair to load at least a private attestation key
10 of the attestation key pair into a protected memory.

1 16. The platform of claim 15, wherein the protected memory includes a
2 plurality of single write, multiple-read control registers.

1 17. The platform of claim 15, wherein the device is an input/output control
2 hub.

1 18. The platform of claim 15, wherein the token further generates an
2 attestation certificate to attest that the private attestation key is stored in protected
3 memory.

1 19. A method comprising:

2 generating an attestation key pair;

3 storing a private attestation key into hardware-protected memory; and

4 producing a certificate including the public attestation key to attest that the private

5 attestation key is stored in the hardware protected memory.

1 20. The method of claim 19, wherein the hardware-protected memory includes
2 single-write, multiple-read control registers.

21. The method of claim 19, wherein the hardware-protected memory includes an isolated area of a system memory accessible to a processor when operating in an isolated execution mode.

1 22. The method of claim 19, wherein the producing of the certificate occurs at
2 an initial power-on of the platform.

1 23. The method of claim 19, wherein the producing of the certificate
2 comprises:
3 booting a platform including the hardware-protected memory from code stored in
4 a readable medium loaded by an agent; and
5 executing an applet stored in the hardware-protected memory to generate the
6 attestation key pair.